[HK BOOKSTORE MANAGEMENT SYSTEM]

[CHONG HAO KEAT]

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

BORANG PENGESAHAN STATUS LAPORAN

JUDUL: [HK BOOKSTORE MANAGEMENT SYSTEM]

SESI PENGAJIAN: [2020 / 2021]

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This report is submitted in partial fulfillment of the requirements for the Bachelor of [Computer Science (Software Development)] with Honours.

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA

2021

DECLARATION

I hereby declare that this project report entitled

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I hereby declare that I have read this project report and found this project report is sufficient in term of the scope and quality for the award of Bachelor of [Computer Science (Software Development)] with Honours.

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DEDICATION

I dedicate this project to God Almighty my creator, my strong pillar, my source of inspiration, wisdom, knowledge and understanding. He has been the source of my strength throughout this program and on His wings only have I soared. I dedicate my dissertation work to my family and many friends. A special feeling of gratitude to my loving parents, whose words of encouragement and push for tenacity ring in my ears. I also dedicate this dissertation to my many friends who have supported me throughout the process. I will always appreciate all they have done.

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ACKNOWLEDGEMENTS

First and foremost, I would like to express unlimited thanks to Universiti Teknikal Malaysia Melaka (UTeM) and Faculty of Information and Communication Technology for giving me an opportunity to apply the knowledge and skills that I have learnt in this project.

Furthermore, I would like to express my very great appreciation to my supervisor, En. Yahya Bin Ibrahim for his valuable and constructive suggestions during the planning and development of this project. Despite of being extraordinarily busy with his duties, took time out to share his knowledge and gave me plenty of advices during the project.

Last but not least, biggest thanks go to my family and friends for giving me moral and financial support during this period. Hence, I would also like to thank everyone who involves directly or indirectly in the project. I might not have done this project successfully without the help received from the people mentioned above.

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ABSTRACT

The purpose of this project is to develop a computerized Bookstore Management System that can be used to create an integrated system which is having better efficiency in term of managing stocks and sales. The problem of bookstore facing now is difficulties in managing stock and sales at the same time. Furthermore, there needs a huge amount of ineffective paper work when all procedures are done using manpower. So, this system is to improve the management aspect by utilizing computerized system to coordinate each function and data. Moreover, to develop a system that is secured which is only can be accessed by authorized user. Thus, this system is designed to assist the user to having a better management such as parent can straight buy their desired books from bookstore while staff and admin can manage their sales for schools and suppliers. As a result, Bookstore Management System had successfully to improve the efficiency of all the works involved in the sales.

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ABSTRAK

Tujuan projek ini adalah untuk membangunkan sebuah sistem komputerisasi *Bookstore Management System* yang dapat digunakan sebagai sistem bersepadu yang mempunyai kecekapan yang lebih baik dalam menguruskan stok dan penjualan. Masalah kedai buku yang dihadapi sekarang adalah kesukaran menguruskan stok dan penjualan pada masa yang sama. Tambahan pula, memerlukan sejumlah besar kertas kerja yang tidak berkesan apabila semua prosedur dilakukan menggunakan tenaga kerja. Jadi, sistem ini adalah untuk meningkatkan aspek pengurusan dengan menggunakan sistem berkomputer untuk menyelaraskan setiap fungsi dan data. Lebih-lebih lagi, untuk mengembangkan sistem yang terjamin yang hanya dapat diakses oleh pengguna yang sah. Oleh itu, sistem ini direka untuk membantu pengguna untuk mempunyai pengurusan yang lebih baik seperti ibu bapa boleh terus membeli buku yang mereka inginkan dari kedai buku sementara kakitangan dan pentadbir dapat menguruskan penjualan mereka untuk sekolah dan pembekal. Hasilnya, *Bookstore Management System* berjaya meningkatkan kecekapan semua kerja yang terlibat dalam penjualan.

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LIST OF ABBREVIATIONS

FYP	**-**	**Final Year Project**
DBLC	**-**	**Database Life Cycle**
ERD	**-**	**Entity Relationship Diagram**
DBMS	**-**	**Database Management System**
SQL	**-**	**Structured Query Language**
DFD	**-**	**Data Flow Diagram**
DBLC	**-**	**Database Life Cycle**

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CHAPTER 1: INTRODUCTION

1.1 Introduction

The keyword “centralize” means the system keeps all the system’ data in a database so that the record can be retrieved from anywhere. Next, “efficiency” means that the order placed can be sent immediately to prepare order to ensure that the customer can receive their order on time. Lastly, “visualize” means the system can generate report automatically based on the database to give a clearer visualization to the staff.

Every work can be done more easily and efficient using computer. Bookstore Management System is a system to store data for stocks and sales. In this system, staff can access in it to insert, update or delete bookstore’s data while reports and statistics only can be seen by admin. For parents, they can buy books for their children from the bookstore through this system. With this system, every process and procedure can be simplify and shortens the process time.

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1.2 Problem Statement

Every day, staff have to count the number of stocks and manage sales by paperwork, this may waste more time compare using PC. Furthermore, it is complicated when they have two separated procedures. So, merging them into one will make staffs’ work more efficient and also can improve the data management quality of the bookstore. Integrated view and function of the system will be much better than separated system.

By creating this system, all the problems stated above may be solve easily.

1.3 Project Objectives

The objectives of this project are:

1. To design an integrated and attractive Bookstore Management System
2. To simplify the process of management of sales
3. To test the efficiency of the proposed system

1.4 Project Scopes

System Users:

- Bookstore Staff
- Bookstore Admin
- Parents

System Modules:

User Module

- Login
- User Verification and Authentication
- Manage the information of all user
- User Interface

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Stock Module

- View, Insert and Update the data of books

Sales Module

- Making new transaction to purchase books
- View the record of books purchased

Supplies Module

- Making new transaction to get supply for books
- View the record of books supplied

Statistics Module

- View the statistics of transaction made by bookstore

1.5 Expected Output

Output 1 : Every transaction will be recorded and profits will be calculated.

Output 2 : Parents can buy books without going to school or bookstore just using this system.

Output 3 : Easier management for staff and admin.

1.6 Conclusion

This system is to make everyone's work more systematic and lighten their burden so that they can put more effort in servicing customers. This will benefits staffs and also customers. Staffs can just manage their bookstore in this system while customers can straight buy their desired books from bookstore.

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CHAPTER 2: PROJECT METHODOLOGY AND PLANNING

2.1 Introduction

In this chapter, the software and hardware requirements are defined in the early stage of development plans. It will also explain how the system are developed and the method used to develop this project. The software required includes Microsoft Visual Studio and Microsoft Management SQL Server Management Studio.

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2.2 Project Methodology

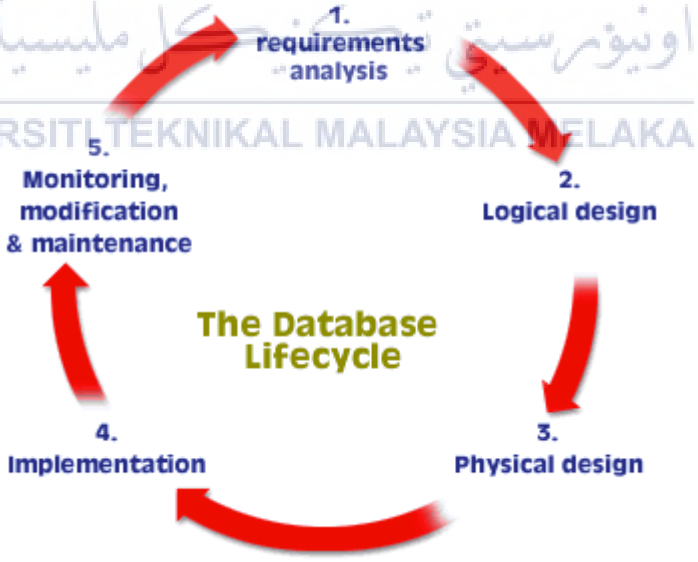

Figure 2.1 : The Database Lifecycle

2.2.1 Requirement Analysis

This is the first and most important stage in the Database Life Cycle. It is the most labor-intensive for the database designer. Here, I decided the topic of my project which is Bookstore Management System. Interviews and observations had been done to collect information and generate the main idea and requirement for this system.

2.2.2 Logical Design

Based on the conceptual data model and a set of mapping rules, every entity and relationship with attributes is converted into relations. Relationships that have attribute groups with data redundancies result in anomalies when adding, updating, or deleting data. Each relation attribute is determined by its data type and domain, including whether the data must be unique or not. The result is a specification for each relation.

2.2.3 Physical Design

Physical database design requires knowledge of the specific DBMS that will be used to implement the database. In the design and definition of physical databases, records organization, file organization, and use of indexes are determined. The goal is to design a data store that provides adequate performance and ensures proper database integrity, security, and recovery. . Thus, physical database design is carried out in coordination with the design of other aspects: programs, computer hardware, operating systems, and data communication networks.

2.2.4 Implementation

After all design had been done completely, data will load into the database. For this system, I used SQL Server as my database. All the data implemented must be match to the data table that created in database. A MVC C# based system is created as application to carry out all the queries and functionality.

2.2.5 Monitoring, Modification and Maintenance

When the database comes into operation, monitoring is carried out to see if performance requirements are being met, whether user expectations increase with demands for better performance. If not, modifications must be made to improve performance. Some regular maintenance activities required include:

- Backup
- Restoration
- Improves performance, adds entities and attributes
- Assignment of access permissions and their maintenance for new and old users
- Database access statistics to improve efficiency and usability of system audits and to monitor system performance.
- Periodic security audits based on system-generated statistics
- Summarize usage of the monthly, quarterly, or yearly system for internal billing or budgeting purposes.

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2.3 Project Schedule and Milestones

Table 2.1: Project Milestone

Task	Duration	Start Date	End Date
Preparing Proposal	6	15-03-21	21-03-21
Approving Proposal	12	22-03-21	04-04-21
Project Planning	6	05-04-21	11-04-21
System Planning	7	12-04-21	18-04-21
System Analysing	6	19-04-21	24-04-21
System Design	5	25-04-21	30-04-21
Interface Design	5	01-05-21	05-05-21
System Implementation	11	06-05-21	16-05-21
Admin Module Coding	4	17-05-21	21-05-21
Information Module Coding	2	22-05-21	23-05-21
Attendance Module Coding	2	24-05-21	25-05-21
Result Module Coding	2	26-05-21	27-05-21
Discipline Module Coding	2	01-06-21	02-06-21
System Testing	3	03-06-21	05-06-21
Final Report Writing	6	15-6-21	21-06-21
Presentation and Demonstration	1		
Report Correction	5		
Submission	1		

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